REMARKS

In the Office Action mailed August 13, 2004, the Examiner noted that claims 1-11 were pending, and rejected claims 1-11. Claims 5, 7, 10, and 11 have been amended, and, thus, in view of the forgoing claims 1-11 remain pending for reconsideration which is requested. No new matter has been added. The Examiner's rejections and objections are traversed below.

In the Office Action the Examiner rejected claims 5-7 and 10 under 35 U.S.C. section 112 paragraph 2 as indefinite. The claims have been amended in consideration of the Examiner's comments and it is submitted they satisfy the requirements of the statute. If additional concerns with the claims arise, the Examiner is invited to telephone to resolve the same. Suggestions by the Examiner are also welcome. Withdrawal of the rejection is requested.

On page 5 of the Office Action, the Examiner rejected all claims under 35 U.S.C. § 102 as anticipated by Detlefs.

The present invention is particularly designed to solve a problem with code expansion that has been called "inline" code expansion or "inlining expansion". This problem is discussed in the background section of the present application specification from page 5, line 18- page 8, line 20. The present invention addresses and solves the problem by what could be called for comparison purposes "out-of-line" code expansion.

Detlefs is directed to an improvement to a system that expands code via an "inlining" method where the improvement is called "method-guarded inlining". See:

> When a compiler that implements the present invention's method-based guarding encounters a method call in the source code that it is compiling, it first determines whether that method meets criteria for method-guarded inlining. FIG. 6A's block 42 represents this determination.

(See Detlefs, col. 5, lines 56-59)
and

> For the sake of simplicity, we assume here that only a single version of the method is inlined at any call site. But the present invention can be implemented in a compiler that inlines more than one version. In that case, a comparison would be performed for each, and an equality determination in any comparison would result in the processor's following the associated inlined-code version.

(See Detlefs, col. 6, lines 52-58)
Where, as noted above, inlining places the code at the site of the source code call:

> So optimizing compilers often "inline" short or frequently used procedures: they copy the procedure's body--without the procedure prolog and epilog--into each site at which the source code calls it.

(Detlefs, col. 2, lines 53-56)

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The improvement supplied by the "guarding" of Detlefs "inlining" is to perform a different object pointer comparison:

> Instead of comparing the object's class entry with the address of the inlined method's defining class, the method test compares the address of the method that was inlined with the receiver object's pointer to the same-named method.

(See Detlefs, col. 5, lines 17-21)

That is, the improved Detlefs approach maintains the expansion of the code inline.

As discussed above, the present invention provides the expansion code outside of the original source program (see figures 5-9B, specification pages 14-23 and claim 1- "wherein the procedure call in the second program is expanded outside the second program"). Similar "outside" the program language is found in the independent claims 5 and 7-11 emphasizing the "out-of-line expansion" by the present invention. This is in contrast to Detlefs "in-line" expansion operation. As pointed out in the portion of the application specification noted above, the present invention solves an inline expansion problem of the prior art. It is submitted that the present invention distinguishes over Detlefs. The present invention, solves a problem not even recognized much less solved by Detlefs. It could be said, since Detlefs is directed to an improved "guarded" method of inlining, that in a certain sense Detlefs also teaches away from the present invention by continuing to stress inlining.

It is submitted that the present claimed invention patentably distinguishes over Detlefs and withdrawal of the rejection is requested.

The dependent claims depend from the above-discussed independent claims and are patentable over the prior art for the reasons discussed above. The dependent claims also recite additional features not taught or suggested by the prior art. For example, claim 4 emphasizes that the out-of-line expansion is where code is not duplicated for the same operation. Detlefs does not teach or suggest this. Again by teaching inlining where code is expanded at the program site, Detlefs teaches away from the present invention since all calls are expanded in-site guaranteeing duplication of calls. It is submitted that the dependent claims are independently patentable over the prior art.

It is submitted that the claims satisfy the requirements of 35 U.S.C. 112. It is further submitted that the claims are not taught, disclosed or suggested by the prior art. The claims are therefore in a condition suitable for allowance. An early Notice of Allowance is requested.

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If any further fees, other than and except for the issue fee, are necessary with respect to this paper, the U.S.P.T.O. is requested to obtain the same from deposit account number 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: _____   By: _____

J. Randall Beckers
Registration No. 30,358

1201 New York Ave, N.W., Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501